

6 October 1948

DOE Review Completed

List of "Items", i.e., technical fields, subjects, etc. (arranged in appropriately entitled "Groups") in which the Armed Services are currently interested in connection with the operation of Public Law 700

Note: The following abbreviations are used in the list to indicate the particular agencies of the National Military Establishment interested in the Items listed:

<u>Army Department</u>	<u>Navy Department</u>	<u>Air Force Department</u>
(AOrd) = Ordnance Dept	(NOrd) = Bureau of Ordnance	(AF) = Air Force Dept
(SC) = Signal Corps		
(CC) = Chemical Corps	(NA) = Bureau of Aeronautics	
(CE) = Corps of Engrs	(Ships) = Bureau of Ships	

Group I - Explosives and Inflammables

- Item 1. Charges, shaped (hollow) (AOrd) (NOrd)
- Item 2. Explosives (new) (AOrd) (NOrd)
- Item 3. Explosives, methods of manufacture (new) (AOrd) (NOrd)
- Item 4. Explosives, raw materials useful in the production of (AOrd) (NOrd)
- Item 5. Explosives, methods and materials (new) leading to the optimum in manufacturing (AOrd) (NOrd)
- Item 6. Mixtures, primer (AOrd) (NOrd)
- Item 7. Mixtures, tracer (AOrd) (NOrd)
- Item 8. Mixtures, incendiary (AOrd) (CC) (NOrd)

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Group II - Missiles, Projectiles and Explosive Devices

- Item 1. Missiles, guided (including war-heads) and means for controlling same (AOrd) (NOrd) (NA) (Ships) (AF) (SC is interested only in electromagnetic-wave remote-control devices and systems)
- Item 2. Bullets, incendiary (AOrd)
- Item 3. Bullets, explosive (AOrd)
- Item 4. Sabots (projectile) (AOrd) (NOrd)
- Item 5. Rockets (new) (AOrd) (NOrd)
- Item 6. Projectiles (chemical warfare) (CC)
- Item 7. Bombs, chemical warfare (CC)
- Item 8. Grenades, chemical (CC)
- Item 9. Projectiles, explosive, propelled, for mine and obstacle clearing during amphibious assault (e.g. amphibious assault snakes) (CE)
- Item 10. Underwater explosive devices, e.g. torpedoes, mines and depth charges (NOrd)

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Group III - Explosive Actuating Methods and Means

- Item 1. Fuzes, proximity (AOrd) (NOrd)
- Item 2. Firing devices, variable delay type (AOrd) (NOrd) (CE as to mechanical devices for mine and obstacle clearing only)
- Item 3. Land mine clearing methods, jet and/or impulse type (CE)
- Item 4. Underwater mine sweeping (Ships)
- Item 5. Anti-torpedo devices (Ships)

Group IV - Weapons, Counter-weapons and Fire Control

- Item 1. Guns, automatic (improved designs) (AOrd) (NOrd)
- Item 2. Gun erosion, disclosures pertaining to (AOrd) (NOrd)
- Item 3. Flame throwing (CC)
- Item 4. "Death Ray" devices and systems in which electrical particles or wave radiations are claimed to cause deleterious effects on human beings or machines (SC)
- Item 5. Gas warfare (CC)
- Item 6. Anti-gas warfare (CC) (Ships)
- Item 7. Bacteriological warfare (CC)
- Item 8. Anti-bacteriological warfare (CC) (Ships)
- Item 9. Weapon mounts, missile launchers and loaders (AOrd) (NOrd)
(NA) (AF)

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Group IV - Weapons, Counter-weapons and Fire Control - continued

- Item 10. Gun barrel and projectile construction to produce hypervelocity,
e.g. squeeze bores and deformable projectiles (AOrd) (NOrd)
- Item 11. Fire control (NOrd) (NA and AF as to airborne only)
- Item 12. Airborne turrets (NA) (AF)

Group V - Explosive Detecting Methods and Means

- Item 1. Detectors, mine, tank mounted (CE)
- Item 2. Detectors, trip wire (CE)
- Item 3. Detectors, underwater mine (Ships) (CE as to portable
detectors only)
- Item 4. Detectors, metallic and non-metallic mine, combination (CE)
- Item 5. Detectors, mine, anti-countermeasure (CE)
- Item 6. Detectors, hypersensitive, for detecting small quantities
of metal (CE)

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Group VI - Object Locating Methods and Means

- Item 1. Radar devices (Ships) (NA and AF as to airborne only) (AOrd and NOrd as to devices for locating and ranging on targets only)
- Item 2. Infra-red and ultra-violet projection or reception apparatus (AOrd) (CE) (Ships) (NA) (AF)
- Item 3. Range finding means (new) (AOrd) (NOrd) (NA and AF as to airborne only)
- Item 4. Range finders or locators using sound (AOrd) (NOrd) (NA and AF as to airborne only)
- Item 5. Range finders or locators using television (AOrd) (NOrd) (NA and AF as to airborne only)
- Item 6. Methods or means (new) for object locating, other than those listed above (AOrd) (Ships) (NA and AF as to airborne only)
- Item 7. Bomb sights (NOrd) (AF)
- Item 8. Devices for measuring the intensity and frequency of underwater sounds (Ships) (NA)
- Item 9. Ground surveying electronic equipment for mapping (CE)
- Item 10. Gunsights, airborne (AF)
- Item 11. Target tracking systems, airborne (AF)

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Group VII - Mapping, Charting and Geodesy

- Item 1. Plotting equipment, field artillery (CE)
- Item 2. Geodesy for navigation of long-range guided missiles (CE)
- Item 3. Survey methods (helicopter) for mapping (CE)
- Item 4. Astronomic orientation attachments (CE)

Group VIII - Navigation Equipment

- Item 1. Compasses, navigational, for armored vehicles (CE)
- Item 2. Compasses, gyro, miniature (CE)
- Item 3. Compasses, lensatic (CE)
- Item 4. Compasses, sun, universal (CE)
- Item 5. Azimuth determination methods (CE)
- Item 6. Position indicators, ground, portable (CE)
- Item 7. Automatic celestial navigation systems (NA) (AF)
- Item 8. Ship speed indicating devices (Ships)
- Item 9. Periscopes (Ships)
- Item 10. Dead reckoning tracers (Ships)
- Item 11. Automatic pilots (NA) (AF)
- Item 12. Compasses, airborne (AF)
- Item 13. Navigation instruments, airborne (AF)

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Group IX - Concealment, Anti-concealment, Interference or Anti-interference

- Item 1. Ice Fog, suppression, methods or means for (as caused by exhaust from internal combustion engines) (AOrd) (AF)
- Item 2. Camouflage (AF as to aircraft only) (CE particularly as to drape type, helmet-cover type and net type)
- Item 3. Coatings, radar-screening (CC) (Ships)
- Item 4. Smoke screening (CC) (Ships)
- Item 5. Smoke dissipation (CC) (Ships only as to shipboard smoke)
- Item 6. Signalling or communication, secret, means or methods for (SC) (Ships)
- Item 7. Electronic means or methods for military countermeasures (including deceptive devices, intentional signal-jamming generators; and systems and techniques for obtaining a desired signal in the presence of intentional jamming. Exclude ordinary noise generators for laboratory test purposes or techniques for obtaining a desired signal through natural interference) (SC) (Ships) (NA) (NOrd) (AF)

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Group I - Propulsion Means

- Item 1. Jet ram (direct ram or in engine form) for land or amphibious vehicles (AOrd)
- Item 2. Propulsion units for assisted take-off of aircraft and guided missiles (AOrd) (NA) (NOrd) (AF)
- Item 3. Propulsion units for propulsion of explosives and other ordnance (AOrd) (NOrd)
- Item 4. Fuels (new) for rocket propulsion (AOrd) (NOrd) (NA) (AF)
- Item 5. Additives for improving the performance of conventional rocket fuels (AOrd) (NOrd) (AF)
- Item 6. Fuels and lubricants and manufacturing processes therefor (AOrd) (NA) (Ships) (AF)
- Item 7. Additives for suppressing detonation of fuels in internal combustion engines (AOrd) (Ships) (AF)
- Item 8. Propulsion means for submarines (Ships)
- Item 9. Turbo-propellers and jets other than simple open cycles (NA) (AF)
- Item 10. Intermittent ram jets (NA) (AF)
- Item 11. Combined rocket and ram jets (NA) (AF)
- Item 12. Pulse jets other than reed valve type (NA) (AF)
- Item 13. Rocket engines, liquid or solid fuel type (AOrd) (NA) (AF)
- Item 14. Gas turbines, special cycles and unusual design (Ships)
- Item 15. Means for quieting ship propulsion (Ships)
- Item 16. Free-piston gas generators for gas turbines (Ships)
- Item 17. Hydrogen peroxide, use of in propulsion systems and methods for preparing highly concentrated solutions of (AOrd) (Ships) (AF)

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Group X - Propulsion Means - continued

- Item 18. Boilers using special fuels or working fluids (Ships)
- Item 19. Oxygen-oil burners (Ships)
- Item 20. Closed cycle operation of internal combustion engines (Ships)

Group XI - Power Supply

- Item 1. Batteries, secondary, for low temperature operation (AOrd)

Group XII - Computers

- Item 1. Ballistics, computation of, electrical and electronic means for (AOrd) (NOrd)

Group XIII - Searchlights

- Item 1. Reflectors, high reflectance non-tarnishing surfaces for (CE)
- Item 2. Reflectors, iron, electroformed (CE)
- Item 3. Reflector electroforming and electroplating techniques (CE)

Group XIV - Meteorology

- Item 1. Sampling, meteorological (CC)

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Group XV - Vehicles

- Item 1. Land or amphibious combat vehicle components or accessories employing new principles (AOrd)
- Item 2. Ships and small craft that have military applications (Ships)
- Item 3. Inflatable boats and rafts (SHIPS) (AF)
- Item 4. Devices for stabilizing an entire ship or component parts (Ships)
- Item 5. Aircraft and component parts designed for Mach Number above 0.92 (NA) (AF)
- Item 6. Aircraft handling gear such as aircraft catapults, aircraft arresting gear and aircraft barriers (NA) (AF)
- Item 7. Aircraft, automatic flight control and stabilization devices (AF)
- Item 8. Aircraft, structural details (AF)
- Item 9. Aircraft, airfoil profiles and plan forms (AF)
- Item 10. Fuel tank, aircraft, self-sealing (AF)

Group XVI - Military Photography

- Item 1. Photographic equipment, aerial (NA) (AF) (CE for mapping only)
- Item 2. Photography (color) (NA) (AF) (CE for mapping only)
- Item 3. Photographic prints, rapid production of (NA) (AF) (CE for ground force use only)
- Item 4. High speed (NA) (AF)

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XVII - Materials

- Item 1. Heat resistant alloys designed for service above 1500°F.
(Ships) (NA) (AF)
- Item 2. Powder metallurgy as applied to heat resistant materials
for service above 1500°F. (Ships) (NA) (AF)
- Item 3. Ceramic coatings or solid ceramic bodies for service above
2500°F. (Ships) (NA) (AF)
- Item 4. Mechanical packings for service above 1100°F. (Ships)
- Item 5. Thermal insulation below a density of 20 pounds per cubic
foot for service above 1100°F. (Ships)
- Item 6. Improved methods for fabricating shipboard rope and imparting
resistance to fire and mildew (Ships)
- Item 7. Special adhesives or bonding agents for extreme service
including water exposure, high temperature (above 600°F.) and
low temperatures (below 35°F.) (Ships) (AF)
- Item 8. Materials for treatment of wood to impart high degree of
stability - freedom from shrinkage, swelling, checking,
resistance to decay and marine borer (Ships)
- Item 9. High temperature plastics suitable for use at temperatures
of 200°C. and above (Ships)
- Item 10. Flame resistant plastics which will not ignite below 600°C.
and which will be self-extinguishing (Ships)
- Item 11. Plastic materials for special uses such as for armor, piping,
small boats, etc. (Ships)

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XVII - Materials - continued

- Item 12. Fire resistant paints (Ships) (AF)
- Item 13. Compositions and processes for anti-fouling protection of ships, etc. (Ships)
- Item 14. Special fire extinguishing materials for extinguishing incendiary fires and fires of volatile liquids (Ships) (AF)
- Item 15. Material for self-sealing aircraft fuel tanks (AF)
- Item 16. Materials for protection from extreme heat or cold (AF)
- Item 17. Equipment preserving materials (AF)

XVIII - Radiology

- Item 1. Detection, measurement and decontamination of, and protection against, radiological emanations (CC) (Ships) (SC interested only in detection and measurement) (NA and AF interested only in detection, measurement and protection)

(Note: With respect to Item 1, Group XVIII, above, Signal Corps, Bureau of Ships, Bureau of Aeronautics and Air Force state that, if all patent applications pertinent to this Item are being reviewed by the Atomic Energy Commission for recommendation both with respect to placement under Public Law 700 and removal therefrom, it will be unnecessary for the Signal Corps, Bureau of Ships, Bureau of Aeronautics and Air Force to review such cases for either purpose. Chemical Corps, however, desires to review all such cases for both purposes, even though AEC

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XVIII - Radiology - continued

reviews them also. Chemical Corps desires that no secrecy orders issued in cases under this Item be rescinded, upon recommendation by AEC or others, without first obtaining Chemical Corps' recommendation.)

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